

# General Purpose VRLA Battery

# DD12050

FC series General Purpose VRLA batteries are designed with AGM(Absorbent Glass Mat) technology. FC series offers 5 years( $\leq 20Ah$ ) and 10 years( $\geq 20Ah$ ) full maintenance free design life. With a compact design and good reliability, this series is highly suited for security and alarm systems, UPS systems, emergency light systems and other small backup applications.

12V Voltage	5Ah Capacity	AGM Technology	General Purpose
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### COMPLIED STANDARDS

IEC 60896-21/22	JIS C8704
YD/T799	BS6290 part4
GB/T 19639	UL 1989

### GENERAL FEATURES

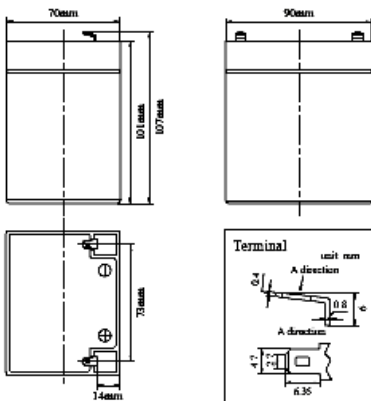
- Can be used at vertical or horizontal orientation
- High Reliability and Good Quality
- High gas recombination efficiency
- High Power Density
- Maintenance-Free Operation

### APPLICATIONS

- UPS & EPS
- Emergency lighting Systems
- Medical Equipment
- Cable TV Systems
- Alarm Systems
- Electric Test Equipment
- Security Systems

### DIMENSIONS & WEIGHT

Length(mm)	90 ± 1
Width(mm)	70 ± 1
Height(mm)	101 ± 1
Total Height(mm)	107 ± 1
Weight(kg)	1.58 ± 3%



### TECHNICAL SPECIFICATIONS

Nominal Voltage		12V(6 cells per unit)
Design Floating Life @25℃		5 Years
Nominal Capacity @25℃ (20 hour rate@0.25A,10.8V)		5.0Ah
Capacity @25℃	10hour rate (0.48A,10.8V)	4.8Ah
	5 hour rate (0.89A,10.5V)	4.45Ah
	1 hour rate (3.33A,9.6V)	3.33Ah
Internal Resistance	Full Charged Battery@25℃	≤30mΩ
Ambient Temperature	Discharge	-15℃~45℃
	Charge	-15℃~45℃
	Storage	-15℃~45℃
Max.Discharge Current@25℃		75A(5s)
Capacity affected by Temperature (10 hour )	40℃	105%
	25℃	100%
	0℃	85%
	-15℃	65%
Self-Discharge@25℃ per Month		3%
Charge (Constant Voltage) @25℃	Standby Use	Initial Charging Current Less than 1.5A Voltage 13.6-13.8V
	Cycle Use	Initial Charging Current Less than 1.5A Voltage 14.4-14.9V

### BATTERY DISCHARGE TABLE

#### Discharge Constant Current per Cell (Amperes at 25°C)

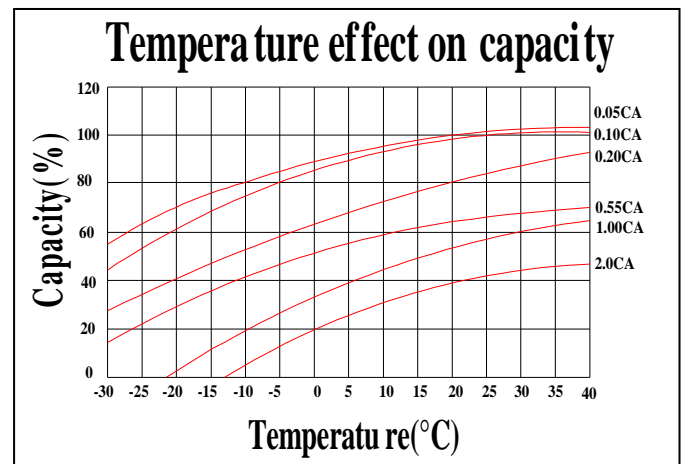
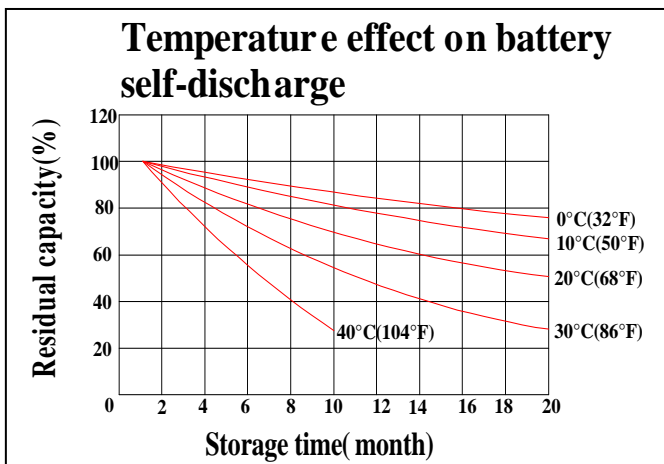
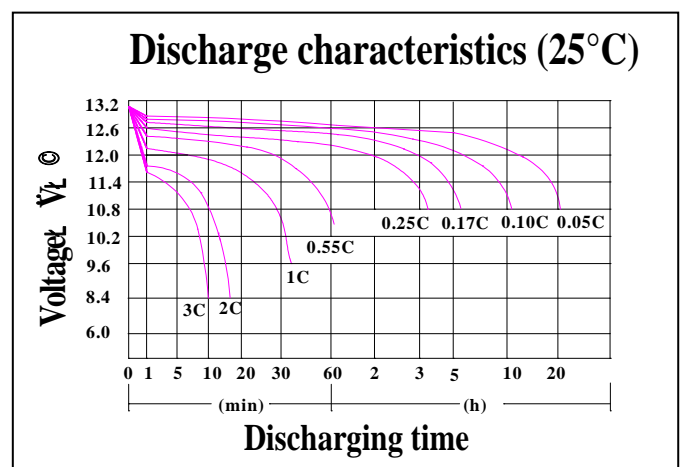
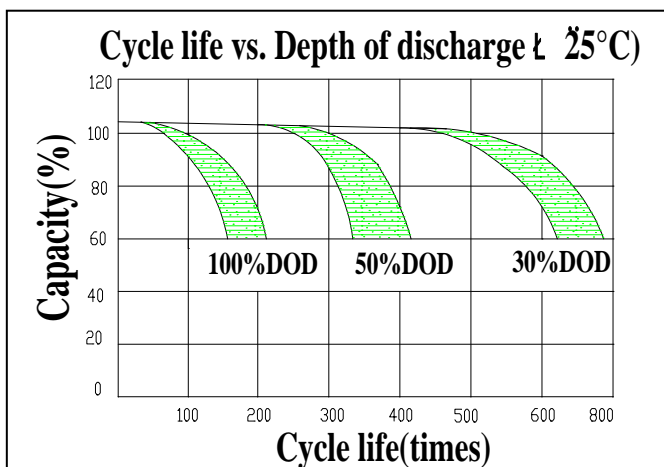
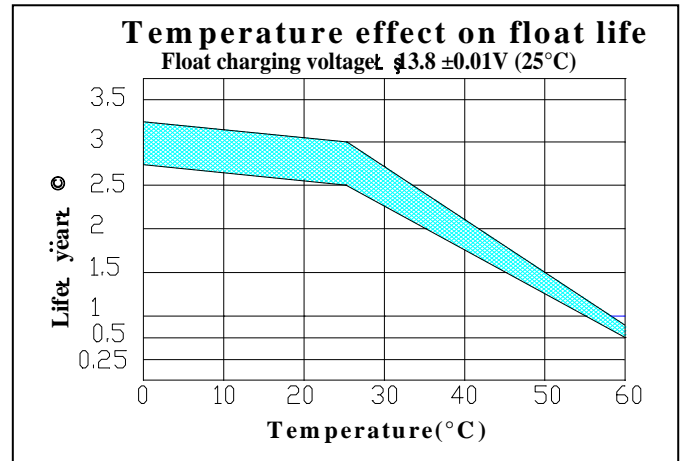
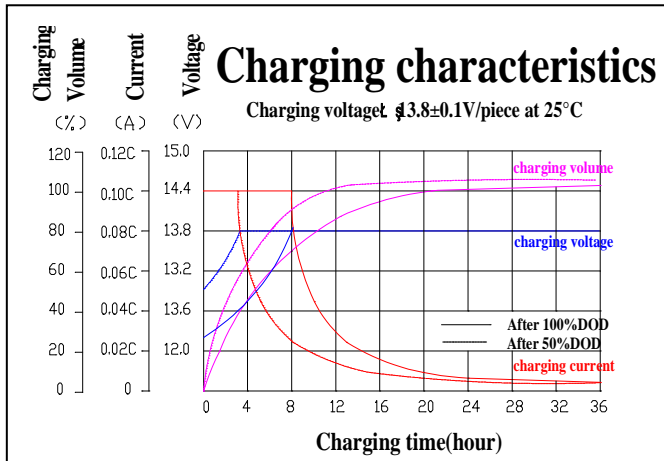
F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	17.1	11.0	8.28	5.50	3.85	3.33	2.06	1.41	0.94	0.63	0.52	0.28
1.65V	16.7	10.8	8.13	5.40	3.78	3.27	2.03	1.39	0.93	0.62	0.51	0.27
1.70V	16.4	10.6	7.98	5.30	3.71	3.21	1.99	1.36	0.91	0.61	0.50	0.27
1.75V	16.1	10.4	7.83	5.20	3.64	3.15	1.95	1.34	0.89	0.60	0.49	0.26
1.80V	15.5	10.0	7.52	5.00	3.50	3.03	1.88	1.28	0.86	0.58	0.48	0.25

#### Discharge Constant Power per Cell (Watts at 25°C)

F.V/Time	5min	10min	15min	30min	45min	1h	2h	3h	5h	8h	10h	20h
1.60V	32.8	21.2	15.9	10.6	7.41	6.41	3.97	2.72	1.81	1.22	1.01	0.53
1.65V	32.2	20.8	15.6	10.4	7.28	6.29	3.90	2.67	1.78	1.20	0.99	0.52
1.70V	31.6	20.4	15.4	10.2	7.14	6.17	3.83	2.62	1.75	1.18	0.97	0.51
1.75V	31.0	20.0	15.1	10.0	7.01	6.06	3.75	2.57	1.72	1.15	0.95	0.50
1.80V	29.8	19.3	14.5	9.6	6.74	5.82	3.61	2.47	1.65	1.11	0.92	0.48

**Note** The above data are average values, and can be obtained within 3 charge/discharge cycles. These are not minimum values. Cell and battery designs/specifications are subject to modification without notice.

## PERFORMANCE CHARACTERISTICS



## BATTERY CONSTRUCTION

Component	Positive plate	Negative plate	Container & Cover	Safety valve	Terminal	Separator	Electrolyte	Pillar seal
Features	Standard Pb-Ca-Sn grid with special paste	Balanced Pb-Ca grid for improved recombination efficiency	ABS (UL94-V0 optional)	Flame Si-Rubber aging resister	Copper No.250 (No.187 optional)	Advanced AGM separator for high pressure cell design	Dilute high purity sulphuric acid	Two layers epoxy resin seal